427. The Bull *cum* Milk Scheme, Hessarghatta, sanctioned at a total cost of Rs. 3,00,000 in June 1948 and implemented in August 1949 continued to show steady progress.

428. The scheme for the distribution of Mineral Supplement for the improvement of Malnad cattle implemented during the previous year in the three Malnad districts of Shimoga, Hassan and Chikmagalur continued to work during the year. The mineral feed was distributed at fifty per cent concessional rates among the *bona fide* cattle owners at the several Taluk Headquarters and rural veterinary dispensaries of the three Districts.

429. In addition to the two Centres that were already working at the City Veterinary Hospital, Bangalore and at the Veterinary Hospital, Mysore, respectively during the previous year, a sub-centre was opened at the Veterinary Hospital, Civil Station, Bangalore, during the year. Seven hundred and seventy-five (567) cattle were served by the artificial insemination method at Mysore and 1,964 (1,158) at the City Veterinary Hospital, Bangalore and the Veterinary Hospital, Civil Station, Bangalore.

430. This is the sixth year of operation of the Live-stock Improvement Scheme sanctioned in May 1945. Eighty-nine (49) stud bulls consisting of 43 (17) Hallikar, 30 (28) Amrithmahal bulls, 8 (1) Sindhi and 8 (3) murrah he-buffaloes were distributed in the State free of cost under "Free Bull Scheme". Eight (4) bulls maintained by private individuals were selected for the award of premia under the "Premium Bull" scheme.

(v) The Serum Institute.

431. The Mysore Serum Institute undertook, as usual, large scale production of several sera and vaccines required for combating outbreaks of contagious diseases among live-stock. Two new Sections were added on to the Institute. The Research Section which is attached to this Institute continued the investigation of various problems connected with diseases of live-stock, besides undertaking the laboratory examination of all pathological materials

AGRI., CO-OPN. & FORESTS

received from the different veterinary institutions in the State. Preparation of anti-rabic vaccine for animals and urine harmone was continued to be undertaken in the Research Section. The Institute also undertook the preparation of vaccine against Ranikhet disease among poultry. Vaccination centres equipped with refrigerators were established at all the District Headquarters of the State. The work of the Institute as heretofore, consisted of the manufacture, on a commercial scale, of 15 different sera and vaccines generally employed for the control of epizooties among livestock. The year opened with a balance of 2,51,510 (2,73,710) units of doses of biologicals and a total quantity of 10,71,075 (6,29,916) doses were supplied within the State and 86,580 (1,30,117) doses were sold outside the State, thereby leaving a closing balance of 1,61,795 (2,11,260) doses at the end of the year.

432. The total expenditure for the year including all items, amounted to Rs. 1,74,281 and the revenue realised by the sale of biologicals and done animals inclusive of sales-tax amounted to Rs. 2,19,087.

Government Grass, Stud, Poultry and Dairy Farm, Hessarghatta.

433. Failure of early monsoon rains resulted in severe scarcity of fodder to the farm animals during summer months. The Grass Farm primarily was concerned in growing and the supplying fodder and food grains to the several units and the Farm labourers. The supply of hay and green fodder to the Mysore Lancers was completely discontinued during the year. The grass lands thus released were converted into grazing kavals for the increasing number of animals maintained in the several units such as the dry cattle farm, the dairy farm, the sheep and goats' farm and the stud farm.

434. *Stud Farm.*—The expansion of pony breeding section with a foundation stock of 100 mares was sanctioned.

435. *Dry Cattle Farm.*—The year opened with 140 dry cows belonging to private owners in and round about Bangalore. During the year, 108 cows and 42 she-buffaloes were admitted, while 144 cows and 64 she-buffaloes were

discharged and 30 cows and 14 she-buffaloes died as a result of old age and debility. The year closed with 74 cows and 29 she-buffaloes. The animals of the Farm were free from contagious diseases.

436. *Sheep Farm.*—Consequent on the decision to wind up all the uneconomical sheep farms in the State, a sheep farm was started at Hessarghatta with a view to concentrating the sheep breeding activities on scientific and economic lines on this farm.

437. *Poultry Farm.*—The 1,000 layer poultry scheme sanctioned in March 1950 was implemented on 1st August 1950 at Hessarghatta. There were 1,443 birds on the Farm at the end of the year.

438. In view of the acute shortage of milk that is generally felt throughout the State and of the necessity to increase the production of milk to meet the demand and also to raise high milking strains of dairy cows and good stud bulls for distribution among the public for grading up local inferior cattle, the starting of Dairy-*cum*-Bull farm was sanctioned in June 1948.

439. With a view to consolidating all the available resources on this extensive farm and for providing for the efficient management of all the existing and new activities under a unified control, a comprehensive scheme for the establishment of a Composite Lives-tock Farm and Research Station at Hessarghatta for the breeding of all the different species of livestock, including the remounts, ponies, dairy cows, hallikar cows, mutton and woolly breeds of sheep, goats, poultry, pigs and bees as also for the continuance of the dry cattle farm has been drawn up by the Department and was under the consideration of Government.

440. *Kunigal Stud Farm.*—The administrative control of the Kunigal Stud Farm that was transferred from the Military Department from 24th October 1949 continued to be under the control of this Department during the year.

441. The year opened with 4 stallions, 10 mares and 4 young stock. During the year one mare was purchased and another was presented to the farm, thus leaving 12 mares at the close of the year.

442. There were 97 Bannur breed of sheep at the beginning of the year. One sheep was received during the year